

Lesson Plan	English	Whole Class		
Class: 1/2D - Year 1	Topic: Maths: Vol & Capacity - B	Week: 2	Date: 6 May 2009	
<b>Anticipated Outcomes:</b> MES1.3 Compares the capacities of containers and the volumes of objects or substances using direct comparison WMS1.2 Uses objects, diagrams, imagery and technology to explore mathematical problems <b>Capacity</b> means how much a container will hold <b>Volume</b> means the amount of space it takes up				
Activity/purpose/class structure	Indicators	Resources	Assessment	IOT elements
<b>1. Let's Compare - Whole class</b> • "Let's compare" – Find three containers that will hold more rice than a given container and three that will hold less rice  <u>Questions</u> - Which container has the larger capacity (holds the most rice) - Which pile of rice has the greater volume (more rice) - What is the difference between volume and capacity?	1. be familiar with the terms volume and capacity and use comparative language, e.g. larger, smaller, biggest, smallest, the same as 2. use compensation strategies, e.g. one container is higher, but the other is wider so the two might hold about the same 3. compare volume or capacity systematically and explain why volume or capacity fits into a particular ordering	- a range of containers - rice		4.1.3 Listen to students and engage them in classroom discussion.
<b>2. Can it be?</b> Have two different-sized cans or plastic containers, one short and fat and the other one tall and skinny.  Fill one container with sand or rice. Students then predict which container will hold the most or has the greatest capacity.  Pour the contents from the first container into the other one. Record the results (use word bank).		- a range of containers - rice		

<p><b>3. Who can hold the most? - whole class - outside</b></p> <p>Introduce the measurement lesson.</p> <ul style="list-style-type: none"> <li>• Whole-class discussion on comparing the volume of material which students can hold in one hand, or finding who can hold the most in their hand (capacity).</li> </ul> <p><u>Questions</u></p> <ul style="list-style-type: none"> <li>- What could we measure about a hand? (length, area, capacity)</li> <li>- How could we work out who can hold the most in one hand?</li> <li>- What materials might be good to use?</li> <li>- How could we make an order from largest hand to smallest hand in our groups?</li> <li>- What are the words we will need to use? ( bigger than, smaller than, more, less, as much as)</li> </ul>	<p>Check that students:</p> <ul style="list-style-type: none"> <li>• estimate first</li> <li>• take a handful of material</li> <li>• can compare the volume of material in cups</li> <li>• understand that the student who holds the most beans has the largest hand capacity.</li> </ul>	<ul style="list-style-type: none"> <li>- lima beans</li> <li>- clear plastic cups</li> </ul>		<p>4.1.4 Use student group structures as appropriate to address teaching and learning goals</p> <p>4.1.2 Demonstrate a range of questioning techniques designed to support student learning.</p> <p>5.1.4 Provide clear directions for classroom activities and engage students in purposeful learning activities.</p>
<p><b>Small groups</b></p> <ul style="list-style-type: none"> <li>• Students estimate how many beans or other materials they will be able to hold. Record on a small label with name.</li> <li>• Students dip into a container of beans, fill their hand and then put their beans or materials into clear plastic cups to compare.</li> <li>• Students add their name label, so the cups can be identified.</li> <li>• Order the cups.</li> <li>• Confirm order by counting the beans.</li> </ul> <p><u>Questions</u></p> <p>Did your group order well?</p> <p>Can you put the counted numbers into order, as well?</p> <p>Are the beans good for measuring capacity? Why? Why not?</p> <p>What else could we use for measuring the capacity of hands?</p>				<p>4.1.5 Use a range of teaching strategies and resources including ICT and other technologies to foster interest and support learning</p> <p>4.1.3 Listen to students and engage them in classroom discussion.</p>
<p><b>4. Optional extra activity - Squirt computer game</b></p> <p>Reinforce concept that students will be estimating. + volume, capacity</p>		laptop and Squirt program		<p>1.1.4 Demonstrate current knowledge and proficiency in the use of the following:</p> <ul style="list-style-type: none"> <li>• Basic operational skills</li> <li>• Information technology skills</li> <li>• Software evaluation skills</li> <li>• Effective use of the internet</li> <li>• Pedagogical skills for classroom management.</li> </ul>
<p><b>Evaluation of lesson sequence</b></p> <p>Were tasks appropriate for different abilities/students needs in class?</p> <p>Where to now for each group?</p>				<p>3.1.10 Demonstrate an understanding of the principles and practices for using student assessment results to reflect on lesson sequences and inform further planning of teaching and learning.</p>

*bigger than*

*more*

*less*

*as much as*

*estimate*

*smaller than*